24. A method for manufacturing printing paper or paperboard with a grammage of 30-200 g/m^2 in a paper or paperboard machine, comprising a wet section, a press section and a drying section, in which method a web, formed in the wet section, is pressed in a roll press with a double-felted roll-press nip and, thereafter, in a shoe press with an extended single or double-felted shoe-press nip, wherein:

the web is pressed in a deflection-compensating roll press, having said double-felted roll-press nip and open press rolls;

the machine is operated at a web speed of at least 1,200 m/min.;

the web in said roll-press nip is subjected to a linear load ranging from 100 to 300 kN/m, and a specific pressure ranging from 5 to 15 MPa; and

the web in said shoe-press nip is subjected to a linear load ranging from 500 to 1,500 kN/m, and a specific pressure ranging from 4 to 13 MPa; and

to obtain a dewatered web with a dry-solids content of at least 35 per cent, preferably at least 38 per cent, after the roll-press nip and at least 45 per cent after the shoe-press nip.

25. The method of claim 24 wherein said roll-press nip is subjected to a linear load ranging from 120 to 250 kN/m.

26. The method of claim 24 wherein said roll-press nip is subjected to a specific pressure ranging from 8 to 11 MPa.

27. The method of claim 24 wherein the web in said shoe-press nip is subjected to a linear load ranging from 700 to 1,200 kN/m.

28. The method of claim 24 wherein the web in said shoe-press nip is subjected to a specific pressure ranging from 4 to 8 MPa.

29. The method of claim 24 wherein the web, after the roll-press nip, is brought to adhere to a press felt acting as a transfer felt in the roll press with the aid of a suction roll and/or one or several blowing boxes that generate partial vacuum or suction boxes.

30. The method of claim 29, wherein the web is conveyed to the shoe-press nip enclosed between first and second press clothings in a sandwich construction.

31. The method of claim 24 wherein the web, after the shoe-press nip, which is double-felted, is brought to adhere to a press felt acting as a transfer felt in the shoe press with the aid of a suction roll and/or one or several blowing boxes that generate partial vacuum or suction boxes.

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32. The method of claim 24 wherein the web, after the shoe-press nip, which is single-felted, is brought to adhere to a press clothing acting as a transfer belt having a smooth web-contacting surface.

33. The method of claim 24, wherein the web, having been transferred from the roll press to the shoe press, is brought to adhere to a press felt acting as the felt carrying the web in the shoe press with the assistance of blowing boxes that generate partial vacuum or suction boxes, arranged in the loop of said press felt.

34. The method of claims 24, wherein the web is transferred from the roll press to the shoe press with the aid of a pick-up suction roll , arranged in the loop of a press felt of the shoe press, which press felt carries the web to the shoe-press nip.

35. The method of claim 24, wherein the web is conveyed from the roll-press nip enclosed between upper and lower press felts in a sandwich construction.

36. The method of claim 24, wherein the web is conveyed from the roll-press nip to the shoe-press nip enclosed between upper and lower press felts in a first sandwich construction and, following a closed draw between the roll press and the shoe press, thereafter enclosed between first and second press clothings of the shoe press in a second sandwich construction.

37. The method of claim 24 wherein the web is pressed in the deflection-compensating roll press, the rolls of which each have a water-receiving capacity of 0.7-1.8 dm^3/m^2 of envelope surface.

A1 38. A paper or paperboard machine for manufacturing printing paper or paperboard at high speed, which printing paper or paperboard has a grammage of 30-200 g/m^2, comprising a wet section, a press section and a drying section, which press section includes a roll press, having a double-felted roll-press nip, and a shoe press, having an extended single or double-felted shoe-press nip, wherein the roll press has open press rolls with deflection-compensating, rotatably journalled envelope surfaces and wherein the machine is arranged to be operated at a web speed of at least 1,200 m/min., with a linear load in the roll-press nip ranging from 100 to 300 kN/m, and in the shoe-press nip ranging from 500 to 1,500 kN/m, and with a specific pressure in the roll-press nip ranging from 5 to 15 MPa, and in the shoe-press nip ranging from 4 to 13 MPa, to obtain a dewatered web with a dry-solids content of at least 35 per cent, preferably at least 38 per cent, after the roll-press nip and at least 45 per cent after the shoe-press nip.

39. The machine of claim 38 wherein the linear load in the roll-pres nip ranges from 120 to 250 kN/m.

40. The machine of claim 38 wherein the linear load in the shoe-press nip ranges from 700 to 1,200 kN/m.

41. The machine of claim 38 wherein the specific pressure in the roll-press nip ranges from 8 to 11 MPa,

42. The machine of claim 38 wherein the specific pressure in the shoe-press nip ranges from 4 to 8 MPa,

43. The machine of claim 38, wherein a suction roll and/or one or several blowing boxes that generate partial vacuum or suction boxes are arranged after the roll-press nip in the loop of a press felt acting as a transfer felt in the roll press.

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44. The machine of claim 43, wherein first and second press clothings of the shoe press are arranged to run in contact with each other before the shoe-press nip, whilst enclosing the web between them, to form a sandwich construction up until the shoe-press nip.

45. The machine of claim 38, wherein a suction roll and/or one or several blowing boxes that generate partial vacuum or suction boxes are arranged after the shoe-press nip, which is double-felted, in the loop of a press felt acting as a transfer felt in the shoe press.

46. The machine of claim 38, wherein the shoe press has a press clothing which is an impermeable transfer belt, having a smooth surface, to which the web adheres after the shoe-press nip.

47. The machine of claim 46, wherein the impermeable transfer belt is arranged as a lower press clothing in the shoe press.

48. The machine of claim 38 wherein blowing boxes that generate partial vacuum are arranged in the loop of a press felt arranged to carry the web in the shoe press from the roll press to the shoe-press nip.

49. The machine of claim 38 wherein a pick-up suction roll is arranged in the shoe press in a loop of a press felt arranged to carry the web to the shoe-press nip, which pick-up suction roll is arranged with said press felt to co-operate with the press felt acting as a transfer felt in the roll press to transfer the web to said press felt.

50. The machine of claim 38, wherein upper and lower press felts of the roll press are arranged to run in contact with each other from the roll-press nip, whilst enclosing the web between them, to form a sandwich construction up until a suction roll arranged in the loop of the web-carrying press felt.

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51. The machine of claim 38, wherein upper and lower press felts of the roll press are arranged to run in contact with each other, whilst enclosing the web between them, to form a first sandwich construction up until a suction roll arranged in the loop of the press felt carrying the web, and in that first and second press clothings of the shoe press are arranged to run in contact with each other before the shoe-press nip, whilst enclosing the web between them, to form a second sandwich construction up until the shoe-press nip.

52. The machine of claim 38 wherein the open press rolls each have an envelope surface of steel with holes or grooves for receiving water, that together have a volume per square metre of envelope surface of 0.7-1.8 dm^3.

53. The machine of claim 52, wherein the groove or hole volume is about 1.1 dm^3/m^2 of envelope surface.

54. The machine of claim 53, wherein the press roll is grooved having a plurality of grooves, the grooves having a width of about 0.5 mm and a depth of about 5 mm, the cc distance between two adjacent grooves being about 2.25 mm.